

IAP5 Rec'd PCT/PTO 27 DEC 2005

DOCKET: CU-4616

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Norio ISHIBASHI et al.

TITLE: CONTAINER, FROZEN MATERIAL PACKAGING BODY, AND METHOD  
OF MANUFACTURING PACKAGING BODYAMENDED SPECIFICATION*Please delete the entire paragraph [0042]**Please replace paragraph [0059] with the following amended  
paragraph:*

[Table 3]

Filled Amount	400ml (20%of Container Volume	1000ml (50%of Container Volume	1500ml (75%of Container Volume	2000ml (100%of Container Volume
Example 1	Not Expand	Not Expand	Not Expand	Not Expand
Comparative Example 1	Without substantive Expansion	Expand	Expand	Expand

As known from Table 3, in the frozen material packaging bodies using the containers according to Embodiment 1 of the present invention, regardless of the filled amount of the frozen material (even though it is filled 100%), the containers did not expand. Meanwhile, in the frozen material packaging bodies using the containers of Comparative Example 1, although a large expansion has not been observed, it was impossible to prevent the container from expanding when the frozen material was filled more. Namely, in the present invention, it is possible to preferably enjoy the advantages of the present invention when the filled amount of the frozen material exceeds 20% of the container volume (preferably 50% or more).

(Comparative Example 3)

The paper container according to Comparative Example 3 is prepared. A layer structure of its container body is in an order of polyethylene/paper/ polyethylene from the outside of the container. The other portions are similar to those of the paper container of Example 1.

*Please replace paragraph [0060] with the following amended paragraph:*

Test 4

A laminated body(with aluminum foil layer)used for a body of the container according to Example 1 and a laminated body(without aluminum foil layer) used for a body of the container according to ~~Example 2~~ Comparative Example 3 of the present invention are prepared to measure their tearing strength and burst strength.

*Please replace paragraph [0062] with the following amended paragraph:*

[Table 4]

	Tearing Strength in Longitudinal Direction (mN)	Tearing Strength in Lateral Direction (mN)
Example 1	525	Impossible to tear down
<del>Example 2</del> <u>Comparative Example 3</u>	447	450

Please replace paragraph [0063] with the following amended paragraph:

[Table 5]

	Burst Strength in Longitudinal Direction (Pa)
Example 1	1091
<del>Example 2</del> Comparative <u>Example 3</u>	771

As known from Tables 4 and 5, the laminated bodies used in Example 1 of the present invention are excellent with respect to both of the tearing strength and the burst strength in comparison with that of ~~Example 2~~ Comparative Example 3. This result is considered to depend on whether or not the aluminum foil layer exists in the laminated body. Namely, it is preferable that an aluminum foil layer exists in the container according to the present invention as described in reference of Figure 2. Further, the laminated body used in Example 1 has polyethylene terephthalate laminated in addition to the aluminum foil layer. Such the laminated body is superior to that of ~~Example 2~~ Comparative Example 3 because of a synergistic effect between an aluminum foil layer and polyethylene terephthalate.

Please replace paragraph [0065] with the following amended paragraph:

Test 5

A laminated body (with aluminum foil layer) used for a body of the container according to Example 1 and a laminated body (without aluminum foil layer) used for a body of the container according

to ~~Example 2~~ Comparative Example 3 of the present invention are prepared to measure their oxygen permeability and moisture permeability.

*Please replace paragraph [0067] with the following amended paragraph:*

[Table 6]

	Oxygen Permeability (ml/m <sup>2</sup> · day · MPa)	Moisture Permeability (ml/m <sup>2</sup> · day · MPa)
Example 1	0	0
<del>Example 2</del> <u>Comparative Example 3</u>	14805 to 29610	6

As known from Table 6, the laminated body used for the container body of Example 1 of the present invention is superior in both of oxygen permeability and moisture permeability to the container according to ~~Example 2~~ Comparative Example 3. This reason seems to reside in a difference of whether or not the aluminum foil layer exists inside the laminated body in a similar manner to Test 4 described above. Accordingly, in the container of the present invention formed in use of the laminated body having the aluminum foil layer, it is possible to completely shut down transmission of oxygen between the outside and the inside in the main body of the container except for the vent port.

*Please replace paragraph [0068] with the following amended paragraph:*

Test 6

A laminated body according to Example 1 and a laminated body according to ~~Example 2~~ Comparative Example 3 of the present invention

are prepared. Pellets obtained by freezing bifidobacteria which are cultivated in a culture media of milk (10% skimmed milk solution and 1% yeast extract) are filled in the containers. Thereafter, while maintaining the containers sealed, the pellets obtained by freezing bifidobacteria are dissolved and fermented at a temperature of 37 Celsius degree. The pH changes of thus obtained dissolved liquid inside the containers are measured.

*Please replace paragraph [0070] with the following amended paragraph:*

[Table 7]

	0 hr	2 hr	3 hr	4 r	5 hr	6 hr	7 hr	8 hr
Example 1	6.20	6.14	6.07	5.91	5.62	5.29	4.96	4.71
<del>Example 2</del>								
<del>Comparative</del>								
<del>Example 3</del>	6.20	6.20	6.19	6.14	6.03	5.82	5.47	5.11

As known from Table 7, the pH of the dissolved liquid inside the container according to the present invention has a lower drop rate in comparison with that of ~~Example 2~~ Comparative Example 3. This means fermentation by bifidobacteria runs faster. Accordingly, there is a stronger effect of enhancing fermentation of contents by anaerobe such as bifidobacteria in the container according to Example 1 (i.e. container having an aluminum foil layer in its laminated body) than in the container according to ~~Example 2~~ Comparative Example 3.